

IN THE CLAIMS:

Please amend claims 1, 8-11, and 14-26 as follows.

1. (Currently Amended) A method, ~~for implementing a signalling bearer connection in a distributed radio access network, the method comprising:~~

creating a first interface instance between an interworking unit and at least one of the networks selected from a group of networks comprising a core network and a neighbouring radio access network-; wherein the method implements a signaling bearer connection in a distributed radio access network;

creating a second interface instance between said interworking unit and a set of internet protocol base stations;

assigning temporary identifier information to user equipment that has a connection to a an internet protocol base station of said set of internet protocol base stations; and

mapping of the signalling traffic between said first and said second interface instances in said interworking unit, said mapping assigning signalling traffic from said first interface instance to said second interface instance based on said temporary identifier information.

2. (Currently Amended) The method according to claim 1, further comprising:
creating a signalling bearer connection for a user equipment through said first and second instances-.

3. (Previously Presented) The method according to claim 1, wherein the mapping of the signalling traffic comprises translating a transport address from the form used in said first interface instance to the form used in said second interface instance.

4. (Previously Presented) The method according to claim 1, wherein the mapping of the signalling traffic comprises translating a transport address from the form used in said second interface instance to the form used in said first interface instance.

5. (Previously Presented) The method according to claim 1, wherein the mapping of the signalling traffic comprises translating a signalling protocol of said first interface instance to a signalling protocol of said second interface instance.

6. (Previously Presented) The method according to claim 1, wherein the mapping of the signalling traffic comprises translating a signalling protocol of said second interface instance to a signalling protocol of said first interface instance.

7. (Previously Presented) The method according to claim 1, wherein the mapping of the signalling traffic comprises transmitting said signalling traffic transparently through said interworking unit between said first and second instances.

8. (Currently Amended) The method according to claim 1, further comprising:

composing said identifier information in a three-part form wherein the first part identifies said interworking unit, the second part identifies said internet protocol base station and the third part identifies said user equipment.

9. (Currently Amended) The method according to claim 1, further comprising:
assigning a unique address to said interworking unit; and
addressing said set of internet protocol base stations, which has been connected to said interworking unit with said unique address.

10. (Currently Amended) The method according to claim 1, further comprising:
controlling user plane traffic by said interworking unit (IWU).

11. (Currently Amended) A system, ~~for implementing a distributed radio access network~~ comprising:

a set of internet protocol base stations;
at least one of a core network and a neighbouring radio access network; and
an interworking unit ~~for connecting~~ configured to connect said core network to said set of internet protocol base stations and to at least one of said networks, said interworking unit comprising

a first interface instance between said interworking unit and at least one of said networks,

a second interface instance between said interworking unit ~~a~~ and said set of internet protocol base stations, and

~~a mapping unit~~ mapper for mapping ~~configured to map~~ the signalling traffic between said first and said second interface instances, said ~~mapping~~ mapper assigning signalling traffic from said first interface instance to said second interface instance based on temporary identifier information associated with a user equipment.

12. (Previously Presented) The system according to claim 11, wherein said interworking unit is implemented in a radio access network server.

13. (Previously Presented) The system according to claim 12, wherein the radio access network server controls the functions of radio access network gateway and circuit switched gateway.

14. (Currently Amended) The system according to claim 11, wherein said interworking unit is connected to ~~a~~ said set of internet protocol base stations, and said set of internet protocol base stations is addressed as one logical interworking unit.

15. (Currently Amended) The system according to claim 14, wherein said interworking unit is assigned a unique network address for addressing said set of base stations and that the signalling connection is terminated in said interworking unit .

16. (Currently Amended) The system according to claim 11, ~~wherein said interworking unit further comprises~~comprising:

a transport address entity ~~for translating~~configured to translate the transport addresses from the form used in said first interface instance to the form used in said second interface instance-, and vice versa.

17. (Currently Amended) The system according to claim 11, ~~wherein said interworking unit further comprises~~comprising:

a protocol entity ~~for translating~~configured to translate the protocols of said first interface instance to the protocols of said second interface instance, and vice versa.

18. (Currently Amended) The system according to claim 11, wherein said internet protocol base station is equipped with radio access control equipment.

19. (Currently Amended) An apparatus, comprising:

~~Interworking unit connected to at least one of a core network and a neighbouring radio access network and to a set of base stations in a distributed radio access network, said interworking unit comprising:~~

a first interface instance ~~between said interworking unit and at least one of said networks;~~wherein the apparatus is connected to at least one of a core network and a

neighboring radio access network and to a set of internet protocol base stations in a distributed radio access network;

a second interface instance between said ~~interworking unit~~ apparatus and a set of internet protocol base stations which has been equipped with radio access control equipment; and

a ~~mapping unit for mapping~~ mapper configured to map the signalling traffic between said first and said second interface instances, said mapping assigning signalling traffic from said first interface instance to said second interface instance based on temporary identifier information associated with a user equipment, ~~whereupon~~ wherein said ~~interworking unit~~ apparatus ~~functions~~ is configured to function as a logical radio network controller.

20. (Currently Amended) ~~The interworking unit~~ The apparatus according to claim 19, wherein ~~a~~ the first interface instance is created between said ~~interworking unit~~ apparatus and said core network.

21. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, wherein ~~a~~ the first interface instance is created between said ~~interworking unit~~ apparatus and a neighbouring radio network controller.

22. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, wherein ~~a~~the first interface instance is created between said ~~interworking unit~~ apparatus and a neighbouring base station controller.

23. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, wherein ~~a~~the second interface instance is created between said ~~interworking unit~~apparatus and a set of internet protocol base stations.

24. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, wherein said first and second interface instances are terminated in said ~~interworking unit~~ apparatus.

25. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, ~~wherein said interworking unit further comprises~~ comprising:

a transport address ~~entity for translating~~ translator configured to translate the transport addresses from the form used in said first interface instance to the form used in said second interface instance, and vice versa.

26. (Currently Amended) The apparatus ~~The interworking unit~~ according to claim 19, ~~wherein said interworking unit further comprises~~ comprising:

a protocol entity ~~for translating~~configured to translate the protocols of said first interface instance to the protocols of said second interface instance, and vice versa.